Author Index of Volume 192

Abo, J., 81
Adachi, G.-Y., 296
Amano, H., 248
Arai, M., 45
Arakawa, T., 37
Asai, K., 149

Bied, C., 191
Blasse, G., 17
Bünzli, J.-C. G., 266

Campbell, R. L., 262
Cao, Z., 48
Carvalho Melo, W., 274
Chen, F. L., 141, 145
Chi, L., 25
Chikano, Y., 179
Choppin, G. R., 256
Collin, J., 191
Cooper, B. R., 223

Dallemer, F., 191
Dingen, W. P. M., 55

Endo, T., 50
Evans, W. J., 205
Eyring, L., 57

Falconnet, P., 114
Fujitani, S., 170
Fujiwara, Y., 200
Fukuda, T., 84, 87, 108
Fukumoto, Y., 149, 152
Fukushi, K., 290
Furukawa, A., 170
Furukawa, N., 179

Gschneidner, Jr., K. A., 1

Handa, Y., 197
Harnoode, C., 280
Hasegawa, Y., 300
Hikichi, Y., 102
Holzapfel, W. B., 53
Horikawa, M., 99
Horiuchi, H., 84, 87

Iida, J., 75
Imamoto, T., 211
Inanaga, J., 197
Inoue, K., 93
Irikawa, M., 164
Ise, T., 179
Ishikawa, H., 155, 161, 167, 176, 182, 188
Ishimori, A., 300
Ishizawa, N., 69
Isobe, M., 105
Isogai, F., 158
Itakura, M., 245
Ivanov, E., 251
Iwakura, C., 149, 152
Iwasaki, H., 84
Iwase, A., 280
Iwata, K., 90
Izawa, Y., 284

Jiang, J., 296
Jin, R., 34
Jin, T., 81

Kagan, H. B., 191
Kagayama, T., 236, 239
Kajita, O., 164
Kajiyama, U., 158
Kakihana, M., 72
Kameda, Y., 280
Kamegashira, N., 93, 96, 99
Kanematsu, H., 90
Kang, Z. C., 57
Kanno, H., 271, 306
Karnatak, R. C., 64
Kasuya, T., 11, 217, 253
Kato, K., 37
Kawamura, W., 284
Kawano, H., 173
Kido, J., 30
Kikuchi, T., 96
Kim, S., 72
Kimizuka, N., 105
Kimoto, M., 179
Kinoshita, K., 158
Kinoshita, M., 141
Kobayashi, M., 93
Kohno, T., 152
Koide, Y., 211
Kojima, T., 121, 124
Komatsubara, T., 236
Kosynkin, V. D., 118
Kozuka, Z., 90
Kurisaki, T., 293
Kuriyama, N., 155, 158, 161, 164, 167, 176, 182, 188
Kusaba, M., 284
Kuwano, N., 245
Kynast, U. H., 55

Lebrun, A., 191
Li, W., 34
Lim, S. P., 223
Lima, F. J. S., 277
Lu, E., 40

Machida, K. I., 296
Masuda, Y., 129, 287
Matsuda, N., 45
Matsukata, M., 121, 124
Matsumoto, A., 42
Matsuoka, M., 149, 152
McNicholl, R.-A., 145
Minagawa, Y., 126
Minamikawa, M., 141
Mishima, R., 176
Miyake, C., 138, 303
Miyamoto, H., 287
Miyamoto, M., 102
Miyamura, H., 155, 158, 161, 164, 167, 176, 182
Mohri, T., 105
Moiseev, S. D., 118
Mōri, N., 236
Munakata, K., 239
Murase, I., 129
Muta, M., 158
Mutoh, A., 290

Nagai, K., 30
Nakamura, H., 170
Nakamura, M., 105
Nakamura, T., 138, 303
Nakashima, N., 284
Nakatani, A., 303
Nakayama, C., 121
Namy, J. L., 191
Nasako, K., 170
Nikipelov, B. V., 118
Nishio, K., 179
Nogami, M., 179
Noro, J., 132

Ochiai, A., 253
Oguro, K., 188
Ohta, A., 173
Ohta, M., 81
Okada, S., 102
Okada, Y., 129
Okajima, Y., 167
Okamoto, S., 37
Okamoto, Y., 30
Ōkawa, H., 42
Oki, K., 245
Okita, H., 242
Ōnuki, Y., 236
Oomi, G., 236, 239, 242
Ōsaki, M., 42
Otsubo, K., 197
Ozeki, T., 28

Pei, Z., 25
Peterson, C. H., 118

Ronda, C. R., 55

Saito, T., 170
Sakai, T., 155, 158, 161, 164, 167, 176, 182, 188
Sakamoto, A., 211
Sakamoto, M., 42
Sakamoto, Y., 141, 145
Sakurai, J., 242
Sato, K., 135
Sato, M., 81
Sato, T., 135
Satoh, H., 93, 96, 99
Sekido, E., 129
Sekine, T., 132
Shen, Y. R., 53
Sheng, Q. G., 223
Shi, C., 40, 48
Shibuya, A., 50
Shimada, M., 50
Shimokoshi, T., 121, 124
Shindo, D., 84, 87
Shinmou, K., 152
Shishido, T., 84, 87
Silber, H. B., 262
Siratori, K., 75
Su, Q., 25
Sumiyama, K., 248, 251
Sun, J., 48
Suzuki, K., 173, 248, 251
Suzuki, T., 231, 253
Suzuki, Y., 290

Tadokoro, M., 179
Takagi, A., 158
Takahashi, H., 236
Takahashi, J., 96
Takaki, K., 200
Takeya, K., 167
Takizawa, H., 50
Tamatani, M., 45
Tanaka, M., 75, 84, 87, 300
Tanase, T., 211
Taniguchi, Y., 200
Tietz, F., 78
Tomokiyo, A., 185
Toyota, N., 84, 87
Tsugita, Y., 167
Tsunekawa, S., 108

Uehara, I., 155, 158, 161, 164, 167, 176, 182, 188
Ujikawa, O., 197
Urland, W., 78
Uwatoko, Y., 242

Vicentini, G., 277
van Hal, H. A. M., 55

Wada, M., 164
Wakita, H., 293
Wang, Q., 34

Yamada, K., 306
Yamaguchi, M., 197
Yamaguchi, T., 293
Yamaguchi, Y., 108
Yamamoto, K., 42

Yamamoto, Y., 211
Yamanaka, C., 284
Yamase, T., 28
Yamauchi, H., 108, 248, 251
Yanagihara, N., 173
Yao, J., 48
Yao, S., 90
Yashima, M., 69, 72
Yayama, H., 185
Ye, Z., 48
Yonesaki, T., 170
Yonezu, I., 170
Yoshimura, M., 69, 72
Yoshimura, T., 303
Yoshinaga, H., 164, 182
Yu, C. F., 102
Yu, G., 34
Zhang, H., 25
Zhang, J., 57
Zhang, Z., 25
Zhou, C., 111
Zinner, L. B., 274
Zou, F., 25

Subject Index of Volume 192

Absorption spectra
  complexes of lanthanide trifluoroacetates, with pyridine-*N*-oxide (pyO), 274
Actinides
  sources of anisotropy in rare earth and actinide exchange interactions, 223
Adduct formation
  complexation of lanthanoids(III) with aromatic carboxylic and α-hydroxycarboxylic acids in aqueous solution and chloroform, 300
Alcohol systems
  coordination of NO_3^- ions to rare earth ions in $Ln(NO_3)_3{}^-H_2O^-$ alcohol systems, 306
Alumina
  lanthanide-ion-exchanged β and β″-alumina, 78
Aluminates
  growth of rare earth aluminate crystals from molten solutions, 84
Aluminium
  structure studies of $CeAlO_3$, 87
Anisotropy
  sources of anisotropy in rare earth and actinide exchange interactions, 223
  thermal expansion coefficients of mixed valence compound $Ce_{1-x}La_xNi$ single crystals, 242

Boron
  development of hydrogen-absorbing alloys for nickel–metal hydride secondary batteries, 179
Bromide solutions
  mean molal activity coefficients of aqueous rare earth bromide solutions at 25 °C, 290

Cerium
  binary higher oxides of the rare earths, 57
  comparative study of heavy fermion behavior in amorphous $CeCu_6$ and $LaCu_6$ alloys, 248
  concentrated Kondo effects in Pd–Ce ordering alloys, 245
  effect of surface treatment on stability of cerium-activated lanthanide oxide bromide phosphors
    I. Hydrolysis of GdOBr:Ce phosphor in aqueous solution, 22
  fundamental physical properties of low carrier systems in Ce and Yb monopnictides, 231
  non-equilibrium f.c.c. phase and valence fluctuation in immiscible Yb–Ce alloy produced by mechanical alloying, 251
  solvent extraction of Ce(III) from aqueous thiocyanate solutions by neutral organophosphorus compounds, 135
  structure studies of $CeAlO_3$, 87
  synthesis and characterization of water-soluble rare earth porphyrins: $Ce(tpyp)_2$ and $Ce(tmpyp)^2$, 296
  valence instability of heavy fermion compound $CeCu_6$ under high pressure, 236
Charge compensation
  charge compensation and luminous centres in $CaF_2:Ce^{3+}$, 40
  charge compensation and valency stability of Eu(II)-doped $KMgF_3$ crystal, 48
Chlorides
  mean molal activity coefficients of aqueous rare earth bromide solutions at 25 °C, 290
  new chiral lanthanide complexes with optically pure ethanediylbis(t-butylphenylphosphine oxide), 211
Copper
  comparative study of heavy fermion behavior in amorphous $CeCu_6$ and $LaCu_6$ alloys, 248
  effect of Cu(II) and Ni(II) complexes of *N*,*N*′-di(salicylidene)-1,3-propanediamine on fluorescence of Tb(III), 42
  production of Cu-alloy complex granules for Ni/metal hydride electrodes, 164
  valence instability of heavy fermion compound $CeCu_6$ under high pressure, 236

Electrical resistivity
  concentrated Kondo effects in Pd–Ce ordering alloys, 245
  electrical resistivity anomaly and specific heat in Gd–H solid solution, 185
  electrical resistivity changes due to dissolved H in Pd-rich Pd-rare earth alloys, 141
  thermal expansion and electrical resistivity of the pseudo-binary compound $Ce_{1-x}La_xAl_3$, 239
  valence instability of heavy fermion compound $CeCu_6$ under high pressure, 236
Electrode properties
  effect of rare earth composition on the electrochemical properties of $Mm(Ni–Mn–Al–Co)_5$ alloys, 173
  H storage alloy powders produced by a reduction–diffusion process and their electrode properties, 167
Electrode reaction mechanisms
  synthesis and electrochemistry of double-decker lanthanoid(III) phthalocyanine complexes, 280
Electroluminescence
  organic electroluminescent devices using lanthanide complexes, 30
Electrolyte solutions
  irregularities in complex formation and thermodynamic properties of aqueous rare earth electrolyte solutions, 271
Emission spectra
  complexes of lanthanide trifluoroacetates with pyridine-*N*-oxide (pyO): synthesis and properties, 274
  fluorescence properties of Ln^{3+}–Cu^+–B-alumina (Ln = rare earth), 37
  yellow-to-blue intensity ratio (Y/B) of Dy^{3+} emission, 25
Energy migration
  synthesis and fluorescence properties of $(Y_{1-x}R_x)_2Te_4O_{11}$ (R = rare earths), 50
Europium
  inner and outer sphere complexation between Eu(III) and the haloacetates, 262
Exchange interactions
  exchange interaction in f electron systems, 217
  sources of anisotropy in rare earth and actinide exchange interactions, 223
Exchange mechanism
  exchange interactions in rare earth compounds, 11

Extraction
extraction of lanthanide(III) from nitric acid solution by octyl (phenyl)-*N*,*N*-diisobutylcarbamoylmethylphosphine oxide, 138
selective extraction of Pr ions from Nd solution using a non-equilibrium extraction method, 126

Ferroelastic crystals
paramagnetic properties of ferroelastic rare earth orthoniobates, 108
Ferromagnetism
magnetic properties of Sm pnictides with anti-Th_3P_4 structure, 253
Fluorescence
effect of Cu(II) and Ni(II) complexes of *N*,*N'*-di(salicylidene)-1,3-propanediamine on fluorescence of Tb(III), 42
effect of pressure on the $^7F_1$ multiplet and phonon sidebands of Sm^{2+} in BaFCl, 53
fluorescence properties of Ln^{3+}–Cu^+–B-alumina (Ln = rare earth), 37
luminescence enhancement of Eu(III) or Tb(III) complexes with organic ligands by Ln(III) (Ln = Y, La, Gd, Lu), 34
synthesis and fluorescence properties of $(Y_{1-x}R_x)_2Te_4O_{11}$ (R = rare earths), 50
Fluorite phase
electrical properties of defect-fluorite phase in the system R_2O_3–Ta_2O_5 (R = Gd, Y, Er and Yb), 72

Gadolinium
electrical resistivity anomaly and specific heat in G–H solid solution, 185
Grinding
mechanochemical changes in hydrated RE orthophosphate minerals by grinding, 102

Haloacetates
inner and outer sphere complexation between Eu(III) and haloacetates, 262
Heat capacity
measurement of heat capacity of $BaEu_2Mn_2O_7$, 99
Hydrated lanthanides
effect of temperature on structure of hydrated lanthanide(III) ions in crystals and in solution, 293
Hydration
complexes of lanthanide picrates with 2-picoline-*N*-oxide (2-PicNO), 277
extraction of L(III) from HNO_3 by octyl (phenyl)*N*,*N*-diisobutylcarbamoylmethylphosphine oxide, 138
irregularities in complex formation, thermodynamic properties of aqueous RE electrolyte solutions, 271
Hydrogen
development of H-absorbing RE–Ni alloys for a −20 °C refrigeration system, 170
electrical resistivity anomaly, specific heat in G–H solid solution, 185
electrical resistivity changes due to dissolved H in Pd-rich Pd–RE alloys, 141
mechanochemical changes in hydrated RE orthophosphate minerals by grinding, 102
thermodynamics of H solution in Pd–Sc alloys, 145
Hydrogen diffusion
H diffusion in amorphous $LaNi_2H_x$ thin films, 188

Hydrogen storage
electrochemical characterization of H storage alloys modified with metal oxides, 152
electrochemical characterization of surface-modified negative electrodes consisting of H storage alloys, 149
H storage alloy powders produced by reduction–diffusion and their electrode properties, 167
H storage alloys rapidly solidified by melt-spinning; their characteristics as metal hydride electrodes, 176
production of Cu-alloy complex granules for Ni/metal hydride electrodes, 164
RE-based H storage alloys for rechargeable Ni–metal hydride batteries, 155
Hydrolysis
effect of surface treatment on stability of Ce-activated lanthanide oxide bromide phosphors. Hydrolysis of GdOBr:Ce phosphor in aqueous solution, 22

Industry
RE industry of China, 111
RE industry of today in the CIS, 118
RE industry: a world of rapid change, 114
Ion exchange
investigations of lanthanide-ion-exchanged β and β''-alumina, 78
structure and ionic conductivity of $MLaNb_2O_7$ (M = K, Na, Li, H), 81
Ionic conductivity
electrical properties of defect-fluorite phase in R_2O_3–Ta_2O_5 (R = Gd, Y, Er, Yb), 72
structure and ionic conductivity of $MLaNb_2O_7$ (M = K, Na, Li, H), 81
Ion-packing model
application of ion-packing model based on defect clusters for lattice parameters and local structures of stabilized zirconia, 69

Lanthanide picrates
complexes of lanthanide picrates with 2-picoline-*N*-oxide (2-PicNO), 277
Lanthanide porphyrins
synthesis and characterization of water-soluble RE porphyrins: $Ce(tpyp)_2$ and $Ce(tmpyp)_2$, 296
Lanthanides
a half-century of lanthanide aminopolycarboxylates, 256
complexes of lanthanide trifluoroacetates with pyridine-N-oxide (pyO): synthesis and properties, 274
divalent lanthanides in organic chemistry, 191
effect of pressure on $^7F_1$ multiplet and phonon sidebands of Sm^{2+} in BaFCl, 53
investigations of lanthanide-ion-exchanged β and β''-alumina, 78
kinetic role of diethylenetriaminepentaacetic acid added to stripping phase in permeation of RE metal ions through supported liquid membrane, 121
lanthanide and uranyl solvation in anhydrous acetonitrile, 266
magnetic susceptibilities of lanthanide(III)–CMPO complexes and lanthanide(III) oxalate complexes, 303
new chiral lanthanide complexes with optically pure ethanediylbis(*t*-butylphenylphosphine oxide), 211
new lanthanide chemistry within tetracyclopentadienyl cavity formed by two $(C_5Me_5)2Ln$ moieties, 205
organic electroluminescent devices using lanthanide complexes, 30

separation of Sc(III) and Ln(III) by polyaminopolycarboxylic acids using capillary tube isotachophoretic method, 129
systematics and anomalies, 1
Lanthanoids
complexation of Ln(III) with aromatic carboxylic and α-hydroxycarboxylic acids in aqueous solution and chloroform, 300
separation factor of lanthanoids by solvent extraction of ternary complexes, 132
synthesis and electrochemistry of double-decker lanthanoid(III) phthalocyanine complexes, 280
Lanthanum
comparative study of heavy fermion behavior in amorphous $CeCu_6$ and $LaCu_6$ alloys, 248
effect of RE composition on electrochemical properties of $Mn(Ni–Mn–Al–Co)_5$ alloys, 173
thermal expansion and electrical resistivity of the pseudobinary compound $Ce_{1-x}La_xAl_3$, 239
Lumen output
optimizing β-Y_2SiO_5:Tb for projection television applications, 55
Luminescence
luminescence enhancement of Eu(III) or Tb(III) complexes with organic ligands by Ln(III) (Ln = Y, La, Gd, Lu), 34
luminescence of rare earth ions, 17
luminescence properties of Pr^{3+} in monoclinic gadolinium sesquioxide, 45
Luminous centres
charge compensation, luminous centres in $CaF_2:Ce^{3+}$, 40

Magnetic properties
fundamental physical properties of low carrier systems in Ce and Yb monopnictides, 231
growth of rare earth aluminate crystals from molten solutions, 84
magnetic susceptibilities of lanthanide(III)–CMPO complexes and lanthanide(III) oxalate complexes, 303
Mössbauer study of $RFeMnO_4$, 75
Magnetic systems
exchange interaction in f electron systems: low carrier magnetic systems, 217
Magnetism
exchange interactions in rare earth compounds, 11
Mechanical alloying
non-equilibrium f.c.c. phase and valence fluctuation in immiscible Yb–Ce alloy by mechanical alloying, 251
Mechanochemical reactions
mechanochemical changes in hydrated RE orthophosphate minerals by grinding, 102
Melt-spinning
H storage alloys rapidly solidified by melt-spinning; their characteristics as metal hydride electrodes, 176
Metal hydrides
characterization of metal hydride electrodes by electrochemical impedance spectroscopy, 161
development of H-absorbing alloys for Ni–metal hydride secondary batteries, 179
H storage alloys rapidly solidified by melt-spinning; their characteristics as metal hydride electrodes, 176
metal hydride thin film electrodes prepared by r.f. sputtering, 182
Ni–metal hydride battery for electric vehicles, 158
production of Cu-alloy complex granules for Ni/metal hydride electrodes, 164
Re-based H storage alloys for rechargeable Ni–metal hydride batteries, 155
Metal oxides
electrochemical characterization of H storage alloys modified with metal oxides, 152
Migration
separation of Sc(III) and Ln(III) by polyaminopolycarboxylic acids using capillary tube isotachophoretic method, 129
Mössbauer spectroscopy
Mössbauer study of $RFeMnO_4$, 75

Negative electrodes
electrochemical characterization of H storage alloys modified with metal oxides, 152
electrochemical characterization of surface-modified negative electrodes consisting of H storage alloys, 149
Neodymium
acceleration of permeation of Pr and Nd ions through a supported liquid membrane by addition of complexing agents to stripping phase, 124
Nickel
characterization of metal hydride electrodes by electrochemical impedance spectroscopy, 161
development of H-absorbing alloys for Ni–metal hydride secondary batteries, 179
effect of Cu(II) and Ni(II) complexes of *N,N'*-di(salicylidene)-1,3-propanediamine on fluorescence of Tb(III), 42
Ni–metal hydride battery for electric vehicles, 158
production of Cu-alloy complex granules for Ni/metal hydride electrodes, 164
RE-based H storage alloys for rechargeable Ni–metal hydride batteries, 155
Nitrate hydrates
standard heats of solution of Y and RE metal nitrate hydrates in water, 287
Nitrates
magnetic susceptibilities of lanthanide(III)–CMPO complexes and lanthanide(III) oxalate complexes, 303
new chiral lanthanide complexes with optically pure ethanediylbis(*t*-butylphenylphosphine oxide), 211
Nitric acid
extraction of lanthanide(III) form HNO_3 by octyl (phenyl)-*N,N*-diisobutylcarbamoylmethylphosphine oxide, 138

Organic ligands
luminescence enhancement of Eu(III) or Tb(III) complexes with organic ligands by Ln(III) (Ln = Y, La, Gd, Lu), 34
Organic synthesis
Sm-mediated acyclic stereoselection in a radical reaction, 197
Organic transformations
divalent lanthanides in organic chemistry, 191
Oxides
binary higher oxides of rare earths, 57
Mössbauer study of $RFeMnO_4$, 75
phase equilibria in $In_2O_3–M_2ZnO_4–ZnO$ at 1350 °C (M = Fe, Ga, Al); crystal chemical consideration of $InMO_3(ZnO)_m$ phases with $LuFeO_3(ZnO)_m$-type structures, 105
phase transitions: $Pr_7O_{12} \rightarrow$ σ-PrOx → A-Pr_2O_3 of Pr oxide thin film and the phase boundaries, 90

RE valence in RO_x ($R = Ce$, Pr, Tb; $1.5 < x < 2$) by X-ray absorption spectroscopy, 64
yellow-to-blue intensity ratio (Y/B) of Dy^{3+} emission, 25
Oxygen
electrical properties of defect-fluorite phase in R_2O_3–Ta_2O_5 ($R = Gd$, Y, Er, Yb), 72
structure studies of $CeAlO_3$, 87

Palladium
concentrated Kondo effects in Pd–Ce ordering alloys, 245
electrical resistivity changes due to dissolved H in Pd-rich Pd–RE alloys, 141
thermodynamics of H solution in Pd–Sc alloys, 145
Paramagnetism
paramagnetic properties of ferroelastic RE orthoniobates, 108
Permeation
acceleration of permeation of Pr and Nd ions through a supported liquid membrane by addition of complexing agents to stripping phase, 124
kinetic role of diethylenetriaminepentaacetic acid added to stripping phase in permeation of RE metal ions through a supported liquid membrane, 121
Phase equilibria
phase equilibria in In_2O_3–M_2ZnO_4–ZnO at 1350 °C ($M = Fe$, Ga, Al); crystal chemical consideration of $InMO_3(ZnO)_m$ phases with $LuFeO_3(ZnO)_m$-type structures, 105
Phase transitions
measurement of heat capacity of $BaEu_2Mn_2O_7$, 99
phase transition of $Ca_{2-x}Sm_xMnO_4$ ($x < 0.5$), 96
phase transitions: $Pr_7O_{12} \rightarrow \sigma$-$PrO_x \rightarrow$ A-Pr_2O_3 of Pr oxide thin film and phase boundaries, 90
thermal diffusivity of $LaMnO_{3+x}$, 93
Phosphor
luminescence of RE ions, 17
Photoexcitation
photoluminescence properties, crystal structure of $K_3Na_4H_2TbW_{10}O_{26} \cdot 20H_2O$, 28
Photoluminescence
photoluminescence properties, crystal structure of $K_3Na_4H_2TbW_{10}O_{36} \cdot 20H_2O$, 28
Photoreduction
high photoreduction yield of Eu^{3+} to Eu^{2+} in alcoholic solutions and its wavelength dependence, 284
Praseodymium
acceleration of permeation of Pr and Nd ions through a supported liquid membrane by addition of complexing agents to stripping phase, 124
binary higher oxides of rare earths, 57

R.f. sputtering
metal hydride thin film electrodes prepared by r.f. sputtering, 182
Reagents
new synthetic reactions by means of RE reagents, 200
Recrystallization
optimizing β-Y_2SiO_5:Tb for projection television applications, 55
Refrigeration system
development of H-absorbing RE–Ni alloys for a −20 °C refrigeration system, 170
Resonance enhancement
effect of pressure on $^7F_1$ multiplet and phonon sidebands of Sm^{2+} in BaFCl, 53

Samarium
divalent lanthanides in organic chemistry, 191
magnetic properties of Sm pnictides with anti-Th_3P_4 structure, 253
new lanthanide chemistry within tetracyclopentadienyl cavity formed by two $(C_5Me_5)2Ln$ moieties, 205
Sm-mediated acyclic stereoselection in a radical reaction, 197
Scandium
separation of Sc(III) and Ln(III) by polyaminopolycarboxylic acids using capillary tube isotachophoretic method, 129
thermodynamics of H solution in Pd–Sc alloys, 145
Sesquioxides
luminescence properties of Pr^{3+} in monoclinic gadolinium sesquioxide, 45
Single crystals
thermal expansion coefficients of mixed valence compound $Ce_{1-x}La_xNi$ single crystals, 242
Solvent extraction
separation factor of lanthanoids by solvent extraction of their ternary complexes, 132
solvent extraction of Ce(III) from aqueous thiocyanate solutions by neutral organophosphorus compounds, 135
Stripping phase
acceleration of permeation of Pr and Nd ions through supported liquid membrane by addition of complexing agents to stripping phase, 124
kinetic role of diethylenetriaminepentaacetic acid added to stripping phase in permeation of RE metal ions through supported liquid membrane, 121
Surface treatment
effect of surface treatment on stability of Ce-activated lanthanide oxide bromide phosphors. Hydrolysis of GdOBr:Ce phosphor in aqueous solution, 22
Synthetic reactions
new synthetic reactions by means of RE reagents, 200
Systematics
systematics and anomalies, 1

Temperature
effect of temperature on structure of hydrated lanthanide(III) ions in crystals and in solution, 293
Terbium
effect of Cu(II) and Ni(II) complexes of *N,N'*-di(salicylidene)-1,3-propanediamine on fluorescence of Tb(III), 42
binary higher oxides of RE, 57
Thermal analysis
phase transition of $Ca_{2-x}Sm_xMnO_4$ ($x < 0.5$), 96
Thermal diffusion
thermal diffusivity of $LaMnO_{3+x}$, 93
Thermal expansion
thermal expansion and electrical resistivity of the pseudo-binary compound $Ce_{1-x}La_xAl_3$, 239
thermal expansion coefficients of mixed valence compound $Ce_{1-x}La_xNi$ single crystals, 242
Thermodynamics
irregularities in complex formation and thermodynamic properties of aqueous RE electrolyte solutions, 271
mean molal activity coefficients of aqueous RE bromide solutions at 25 °C, 290
thermodynamics of H solution in Pd–Sc alloys, 145

Thin films
H diffusion in amorphous $LaNi_2H_x$ thin films, 188
metal hydride thin film electrodes prepared by r.f. sputtering, 182
phase transitions: $Pr_7O_{12} \rightarrow \sigma$-$PrO_x \rightarrow$ A-Pr_2O_3 of Pr oxide thin film and the phase boundaries, 90

Uranyl
lanthanide and uranyl solvation in anhydrous acetonitrile, 266

Vacuum deposition
organic electroluminescent devices using lanthanide complexes, 30
Valency instability
valence instability of heavy fermion compound $CeCu_6$ under high pressure, 236
Valency stability
charge compensation and valency stability of Eu(II)-doped $KMgF_3$ crystal, 48

Wavelengths
high photoreduction yield of Eu^{3+} to Eu^{2+} in alcoholic solutions and its wavelength dependence, 284

X-ray absorption
RE valence in RO_x ($R=Ce$, Pr, Tb; $1.5<x<2$) by X-ray absorption spectroscopy, 64

Ytterbium
fundamental physical properties of low carrier systems in Ce and Yb monopnictides, 231
non-equilibrium f.c.c. phase and valence fluctuation in immiscible Yb–Ce alloy produced by mechanical alloying, 251
Yttrium
selective extraction of Pr ions from Nd solution using non-equilibrium extraction method, 126
standard heats of solution of Y and RE metal nitrate hydrates in water, 287

Zirconia
application of an ion-packing model based on defect clusters for lattice parameters and local structures of stabilized zirconia, 69